

**REMARKS**

Claims 6-25 are rejected, under 35 U.S.C. § 103(a), as being unpatentable over Hrazdera '595 (United States Patent No. 6,942,595) in view of the AAPA as disclosed in Applicant's background of the invention section of the substitute specification paragraphs [006-009]. The Applicant acknowledges and respectfully traverses the raised obviousness rejection in view of the above amendments and the following remarks.

Before discussing the applied prior art in detail, the Applicant would first like to summarize the inventive aspects of the presently claimed invention. As presently claimed, the present invention relates to and covers a method of operating a power takeoff shaft of a tractor that is connected, via a slip clutch, to a drive motor. The power takeoff shaft having at least three discrete, shiftable power takeoff shaft gear stages, including a low stage, an intermediate stage and a high stage. The method comprises the steps of monitoring the travel speed and the motor speed of the tractor with sensors. Initiating travel of the tractor by adjusting the motor speed and adjusting rotation of the power takeoff shaft, via the slip clutch such that the rotational speed of the power take off shaft matches the travel speed of the tractor. Electronically shifting the power takeoff shaft to the intermediate stage, when the motor speed equals a next higher rotational speed threshold. Further adjusting the motor speed and further adjusting the rotation of the power takeoff shaft, via the slip clutch such that the rotational speed of the power take off shaft matches the travel speed of the tractor. And electronically shifting the power takeoff shaft to either the low stage or the high stage of the power takeoff, when the motor speed equals a respective one of a lower rotational speed threshold or a subsequent next higher rotational speed.

Turning now to the applied art, Hrazdera '595 relates to and teaches a control system for the drive of a PTO for a tractor that relates to specific parameters of the implement attached to the tractor. Hrazdera '595 and the AAPA both discuss the disadvantages of PTO shafts which are transmission driven by way of a clutch. The AAPA simply indicates that such PTO drives are excessively mechanically complex and Hrazdera '595 relates that the known control systems fail to take into consideration important conditions such as temperature and viscosity of hydraulic fluid used in the systems (col. 2, Ins. 6-8). Further there was no faculty for manually, variably adjusting engagement and disengagement of the clutch, i.e. PTO (col. 2, Ins. 17-19). Hrazdera '595 further dismisses the use of clutches with such PTO systems indicating that they are most "unsatisfactory" and that "a continuously variable selection of the pto speed

independent of the engine speed is not possible" with such gearbox and clutch systems (col 3, Ins, 22 and 33-37).

In response to the Applicant's remarks that Hrazdera '595 teaches a control system that is used only with a CVT and therefore makes the use of a clutch unnecessary, the Examiner insists that "the simple fact that Hrazdera ('595) even suggests that a clutch may not be necessary still acknowledges the possible or potential use of a clutch with respect to the power takeoff". The Examiner seems to suggest, just because it may be possible to use a clutch and brake with a CVT and the control system of Hrazdera '595 to control drive train having a PTO, that one of skill in the art may be motivated by Hrazdera '595 to do so. On the contrary, the Applicant asserts in view of the discussion in the background of the invention of Hrazdera '595, that one of skill in the art would be discouraged from utilizing any of the teachings of Hrazdera '595 in relation to a method of controlling a PTO in a drive train having a clutch and brake. As taught by Hrazdera '595, "the presence of a clutch, a gearbox with long gear levers and a brake [in such drive trains with a PTO] leads necessarily to a large construction, which results in disadvantages in the design of the driver's cab. In addition the clutch is an expendable part that wears out and incurs costs" (col. 3, Ins. 24-30). The Applicant recognizes that Hrazdera '595 recites further disadvantages in relation to the use of clutches in drive trains having a PTO, however the Applicant believes that it should be clear that Hrazdera '595 *teaches away* from utilizing the taught control system for controlling a PTO in drive trains having clutches, brakes or transmissions other than transmissions that can continuously vary drive to the PTO (see col. 4, Ins. 39-40). In short, although it may arguably be possible to use the control system taught by Hrazdera '595 in a drive train having a stepped transmission and a clutch, the Applicant adamantly asserts that Hrazdera '595 *teaches away* from such.

Next, Hrazdera '595 teaches that the tractor comprises a CVT that is located between the engine and the PTO and is controlled by a control device such that the PTO speed is completely independent from the speed of the engine. It is also possible to run the PTO as a ground speed PTO (col. 4, Ins. 29-30) such as those discussed in paragraphs 006-008 in the background of the invention of the application. It is noted that the background of the invention also teaches a method of controlling a "stepless, adjustable transmission" (CVT) to control both the travel speed of a tractor, having the CVT, and the rotational speed of a PTO.

The reference teaches a variety of inputs that are fed as input signals to the control system and which are considered when the control system passes output signals to the CVT for control of its acceleration and deceleration. Among the inputs,

the control system receives a signal from a mode switch for the ground speed PTO, i.e. a signal is transmitted to the control system when the driver manually switches the mode switch thereby changing the control of the PTO to run as a ground speed PTO. Further the control device is said to receive signals from an engine speed sensor.

The Applicant notes that Hrazdera '595 since the PTO is driven by the CVT which is controlled by the control system, the speed at which the PTO is driven is "attainable completely independently of the instantaneous speed of the engine of the agricultural vehicle" (col. 4, Ins. 20-22). Further, as noted above the CVT is controlled such that the PTO is driven as a ground PTO, in other words the PTO is continuously controlled by continuously controlling and adjusting the gear ratio of the CVT regardless of the engine speed. The Applicant further notes that the AAPA discusses a changeable transmission, having two gears, which drives a PTO, however the Applicant asserts that neither of the references teaches initiating travel of the tractor by adjusting the motor speed and adjusting rotation of the power takeoff shaft, via the slip clutch such that the rotational speed of the power take off shaft matches the travel speed of the tractor and electronically shifting the power takeoff shaft to the intermediate stage, when the motor speed equals a next higher rotational speed threshold.

If any further amendment to this application is believed necessary to advance prosecution and place this case in allowable form, the Examiner is courteously solicited to contact the undersigned representative of the Applicant to discuss the same.

In view of the above amendments and remarks, it is respectfully submitted that all of the raised rejection(s) should be withdrawn at this time. If the Examiner disagrees with the Applicant's view concerning the withdrawal of the outstanding rejection(s) or applicability of the Hrazdera '595 reference, the Applicant respectfully requests the Examiner to indicate the specific passage or passages, or the drawing or drawings, which contain the necessary teaching, suggestion and/or disclosure required by case law. As such teaching, suggestion and/or disclosure is not present in the applied references, the raised rejection should be withdrawn at this time. Alternatively, if the Examiner is relying on his/her expertise in this field, the Applicant respectfully requests the Examiner to enter an affidavit substantiating the Examiner's position so that suitable contradictory evidence can be entered in this case by the Applicant.

In view of the foregoing, it is respectfully submitted that the raised rejection(s) should be withdrawn and this application is now placed in a condition for allowance. Action to that end, in the form of an early Notice of Allowance, is courteously solicited by the Applicant at this time.

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The Applicant respectfully requests that any outstanding objection(s) or requirement(s), as to the form of this application, be held in abeyance until allowable subject matter is indicated for this case.

In the event that there are any fee deficiencies or additional fees are payable, please charge the same or credit any overpayment to our Deposit Account (Account No. 04-0213).

Respectfully submitted,



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